

## Town of Brookfield, CT – Future Debt Discussion

January 2018



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#### **Brookfield Capital Project Presentation Overview**

The Town of Brookfield wishes to complete a number of projects. Funds for these projects will be needed at various times over the next 10 years. The Town has asked Hilltop Securities to respond to the following questions.

- How much will it cost the Town to borrow for all of its projects?
- What will happen to the Town's bond ratings if it borrows for all the projects?
- What will be the cost to the Town of a downgrade?
- What does Hilltop Securities recommend?

# Summary of Financing Scenarios



## Scenario Summary

	Scenario 1	Scenario 2	Scenario 3
<b>Projects Included</b>	All projects	All projects	Scenario 1 without Library project
<b>Timing of Projects</b>	Town's timeline	Delay bonding for major projects 2-3 years	Town's timeline
Total Additional Debt (1)	\$89.910 million	\$89.065 million	\$76.135 million
Maximum mill rate increase	\$2.99	\$3.02	\$2.50
Projected Moody's Rating	Aa2	Aa2	Aa2
Projected S&P Rating	AA+	AA+	AA+

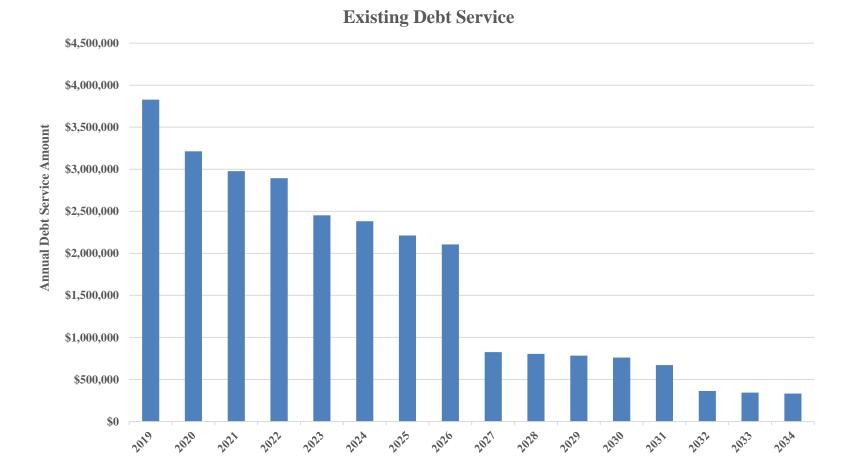
<sup>(1)</sup> Long term debt only (Bonds). Does not include paydowns on BANs



# How Much Will It Cost the Town to Borrow For the Projects?



#### The Town's Existing Debt Service Declines Until 2034

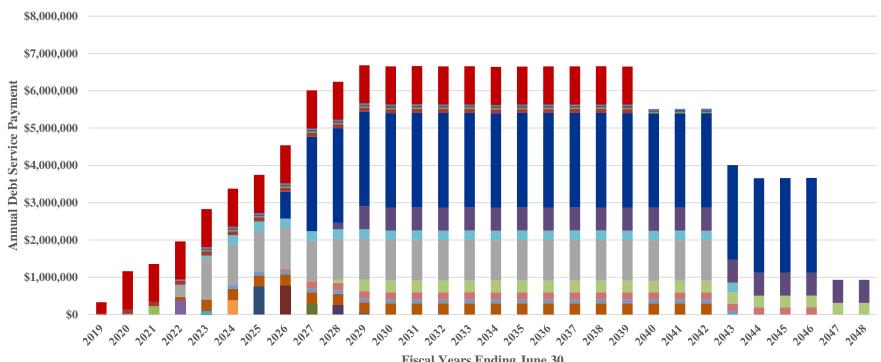






#### Scenario 1 - Additional Debt Service to Complete the Projects Peaks in 2029





**Fiscal Years Ending June 30** 

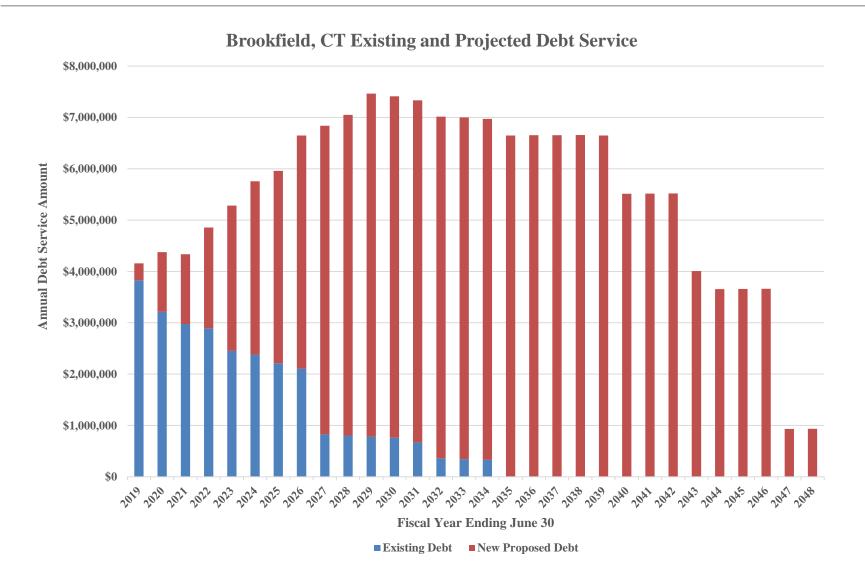
- ■Streetscape II & Capital Project Notes 2018
- ■Police Radio & Capital Projects Notes 2021
- ■School & Various Capital Project Notes 2024
- Various Capital Project Notes 2027
- Capital Proj. 2025
- Police Radio
- ■Streetscape Phase I
- Streetscape Phase IV

- Streetscape II, III, IV, Library & Capital Projects Note 2019
- School & Various Capital Project Notes 2022
- Police Station & Various Capital Project Notes 2025
- Capital Proj. 2021
- Capital Proj. 2027
- Police Station
- ■Streetscape Phase II
- Tax-Exempt School & Town Projects

- ■Streetscape II, III, IV, Library & Capital Projects Notes 2020
- School & Various Capital Project Notes 2023
- Police Station & Various Capital Project Notes 2026
- Capital Proj. 2022
- **■**Library
- School
- ■Streetscape Phase III



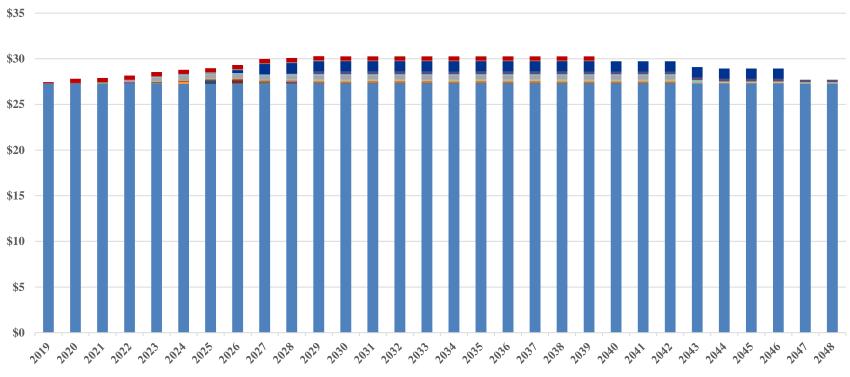
#### Scenario 1 - Combined Existing and Projected Debt Service Peaks in 2029





#### Scenario 1 - Mill Rate Impact of Projected Debt Service

#### Projected Mill Rate for Brookfield, CT



- **■**Current Mill Rate
- ■Streetscape II, III, IV, Library & Capital Projects Notes 2020
- School & Various Capital Project Notes 2023
- ■Police Station & Various Capital Project Notes 2026
- Capital Proj. 2022
- ■Library
- School
- ■Streetscape Phase III

- Streetscape II & Capital Project Notes 2018
- Police Radio & Capital Projects Notes 2021
- School & Various Capital Project Notes 2024
- Various Capital Project Notes 2027
- Capital Proj. 2025
- Police Radio
- Streetscape Phase I
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- Streetscape II, III, IV, Library & Capital Projects Note 2019
- School & Various Capital Project Notes 2022
- Police Station & Various Capital Project Notes 2025
- Capital Proj. 2021
- Capital Proj. 2027
- **■** Police Station
- ■Streetscape Phase II
- Tax-Exempt School & Town Projects



## Scenario 1 - Mill Rate Impact By BAN and Bond

Bond Anticipation Notes (BANs)				
Fiscal Year	Purpose of BANs Proceeds	Projected Increase in Mill Rate for Fiscal Year (\$)		
2019	Streetscape II & Capital Project	\$0.02		
2020	Streetscape II, III, IV, Library & Capital Projects	\$0.10		
2021	Streetscape II, III, IV, Library & Capital Projects	\$0.17		
2022	Police Radio & Capital Projects	\$0.04		
2023	School & Various Capital Projects	\$0.17		
2024	School & Various Capital Projects	\$0.34		
2025	School & Various Capital Projects	\$0.35		
2026	Police Station & Various Capital Projects	\$0.13		
2027	Police Station & Various Capital Projects	\$0.11		
2028	Various Capital Projects	\$0.01		
2029				

Bonds				
Purpose of Bond Proceeds	Average Annual Impact on Mill Rate (\$) for 20 Years			
School and Town Projects	\$0.44			
Streetscape Phase I	\$0.05			
Streetscape Phase II	\$0.01			
Streetscape Phase III	\$0.02			
Streetscape Phase IV	\$0.01			
Library	\$0.47			
Various Capital Projects	\$0.13			
Police Radio	\$0.11			
School	\$1.09			
Various Capital Projects	\$0.09			
Police Station	\$0.27			
Various Capital Projects	\$0.14			

BANs and	Bonds
Aggregate Increase in Mill Rate Over Current Mill Rate (\$)	Projected Mill Rate (\$)
\$0.15	\$27.44
\$0.52	\$27.81
\$0.61	\$27.90
\$0.88	\$28.17
\$1.27	\$28.56
\$1.51	\$28.80
\$1.68	\$28.97
\$2.03	\$29.32
\$2.69	\$29.98
\$2.79	\$30.08
\$2.99	\$30.28



#### Scenario 1 - Assumptions for Projected Debt Issuances

- 1. Aa2/AAA Market Rates as of December 14, 2017.
- 2. Assumes an increase of +25 bps for all debt (Bonds and Bond Anticipation Notes "BANs") issued FY 2020, +50 bps for FY 2021, +75 bps for FY 2022 and +100 bps for FY 2023-2028.
- 3. Assumes level debt service structure with 20-year final maturity for each series of Bonds.
- 4. Paydowns of \$595,000 required on 11/15/2018 (this does not include the \$105,000 of paydowns due for the self-supporting debt).
- 5. Assumes a paydown of \$25,000 in FY 2020, 2021 and 2022 for the Streetscape II project.
- 6. Original estimated Capital Project amounts have been adjusted to round to nearest \$5,000.
- 7. Rates are preliminary and subject to change with market movement.
- 8. Self-supporting debt is not included.
- 9. Costs of Issuance is anticipated to be approximately \$80,000-\$90,000 (depending on number of ratings) for a bond issue and will need to be included as part of the Town's budget in the year of issuance.
- 10. Costs of Issuance is estimated to be between \$40,000 -\$55,000 (depending on issue size) for a BAN issue and will need to be included as part of the Town's budget in the year of issuance.
- 11. Assumes BANs sold in every year starting in FY 2019-2028, respectively: \$1,725,000, \$11,570,000, \$19,120,000, \$4,825,000, \$19,355,000, \$37,610,000, \$39,015,000, \$7,340,000, \$12,805,000, and \$1,495,000.



# Rating Agency Considerations



#### **Rating Agency Considerations**

- The Town is currently rated Aa2 by Moody's and AAA from Standard & Poor's ("S&P")
- However, the S&P rating has not been reviewed recently
  - Based on current S&P criteria, a downgrade to AA+ is possible due to changes in factors unrelated to additional debt
- In recent years both Moody's and Standard & Poor's have tried to make the ratings process more "transparent," there is still discretion in the ratings
- Rating agencies can change their criteria at any times, which can result in movements in credit ratings
  - As a result, it is difficult to predict future ratings with accuracy
  - Hilltop uses rating models based on current rating agency criteria



#### Scenario 1 - Timeline of Debt Issuance and Credit Ratings

- Moody's Aa2 rating is not projected to change despite debt metrics worsening in future years
- S&P's AAA rating is projected to be downgraded with existing debt to AA+ due to factors other than new proposed debt

Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Moody's Rating</b>	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2
S&P Rating	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+
Projects Bonded For	Tax- Exempt School & Town Projects			Streetscape Phase II	Police Radio			School Projects		Police Station	
	Streetscape Phase I			Streetscape Phase III	Various Capital Projects			Various Capital Projects		Various Capital Projects	
				Streetscape Phase IV							
				Library Project Various Capital Projects							



#### Current Standard & Poor's Rating with Existing Debt

 Strong scores in the highest weighted factors keep up Brookfield's score as according to Standard & Poor's Credit Scenario Builder Model





#### Scenario 1 – Projected S&P Rating Fiscal Years 2023, and 2026 - 2029

Increased debt liability and debt service weaken Brookfield's score but does not impact credit rating





## Current Moody's Rating

		Estimat	ed Rating
Moody's Grid Mapping Criteria	Sub-Factor Weights	Score	Rating Category
Factor 1: Economy (30%)			
Tax Base Size (MM)	10%	2.0	Aa
Full Value Per Capita	10%	1.0	Aaa
Wealth (median family income)	10%	2.0	Aa
Total Factor 1	30%		
Factor 2: Finance (30%)		_	
Fund Balance (% of Revenues)	10%	3.0	Α
Fund Balance Trend (5-Year change)	5%	3.0	Α
Cash Balance (% of Revenues)	10%	3.0	A
Cash Balance Trend (5-Year change)	5%	4.0	Baa
Total Factor 2	30%		
Factor 3: Management (20%)			
Institutional Framework	10%	2.0	Aa
Operating History	10%	3.0	A
Total Factor 3	20%		
Factor 4: Debt/Pensions (20%)			
Debt to Full Value	5%	2.0	Aa
Debt to Revenues	5%	2.0	Aa
Moody's Adjusted Pension Liability (3-Year Average) to Full Value	5%	1.0	Aaa
Moody's Adjusted Pension Liability (3-Year Average) to Revenues	5%	1.0	Aaa
Total Factor 4	20%		
Grid Indicated Rating	100%		Aa3
nitial Notch Adjustments			1.0 *
Analyst Notch Adjustments			None

<sup>\*</sup> One notch up for participation in large regional economy (NYC metro area)



#### Scenario 1 - Projected Moody's Rating in Fiscal 2026 - 2029

 Increased debt levels changes the Town's scorecard score starting in Fiscal 2026, but does not ultimately project a change in the Town's Moody's rating

		Estimat	ed Rating
	Sub-Factor		Rating
Moody's Grid Mapping Criteria	Weights	Score	Category
Factor 1: Economy (30%)			
Tax Base Size (MM)	10%	2.0	Aa
Full Value Per Capita	10%	1.0	Aaa
Wealth (median family income)	10%	2.0	Aa
Total Factor 1	30%		
Factor 2: Finance (30%)			
Fund Balance (% of Revenues)	10%	3.0	A
Fund Balance Trend (5-Year change)	5%	3.0	A
Cash Balance (% of Revenues)	10%	3.0	A
Cash Balance Trend (5-Year change)	5%	4.0	Ваа
Total Factor 2	30%		
Factor 3: Management (20%)			
Institutional Framework	10%	2.0	Aa
Operating History	10%	3.0	Α
Total Factor 3	20%		
Factor 4: Debt/Pensions (20%)			
Debt to Full Value	5%	3.0	A
Debt to Revenues	5%	3.0	A
Moody's Adjusted Pension Liability (3-Year Average) to Full Value	5%	1.0	Aaa
Moody's Adjusted Pension Liability (3-Year Average) to Revenues	5%	1.0	Aaa
Total Factor 4	20%		
Cuid Indicated Dating	4000/		A-2
Grid Indicated Rating	100%		Aa3
Initial Notch Adjustments			1.0 *
Analyst Notch Adjustments			None

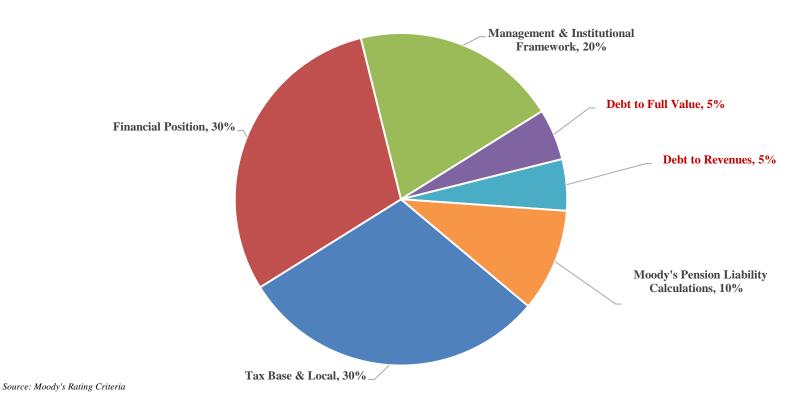
<sup>\*</sup> One notch up for participation in large regional economy (NYC metro area)



#### Debt Analysis is only 10% of Moody's Current Rating Criteria

Moody's current criteria includes two debt ratio factors, which constitute 10% of the overall rating.

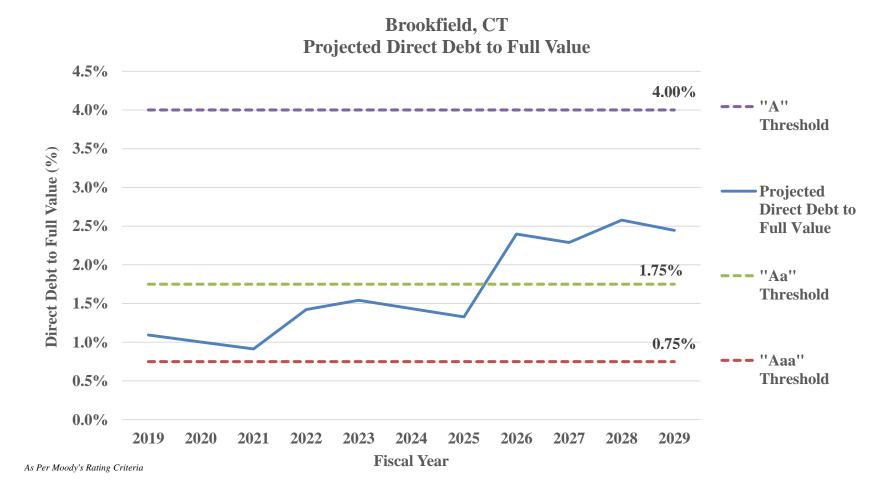
Moody's Local Government Rating Criteria as of December 2017





#### Scenario 1 - Projected Direct Debt to Full Value

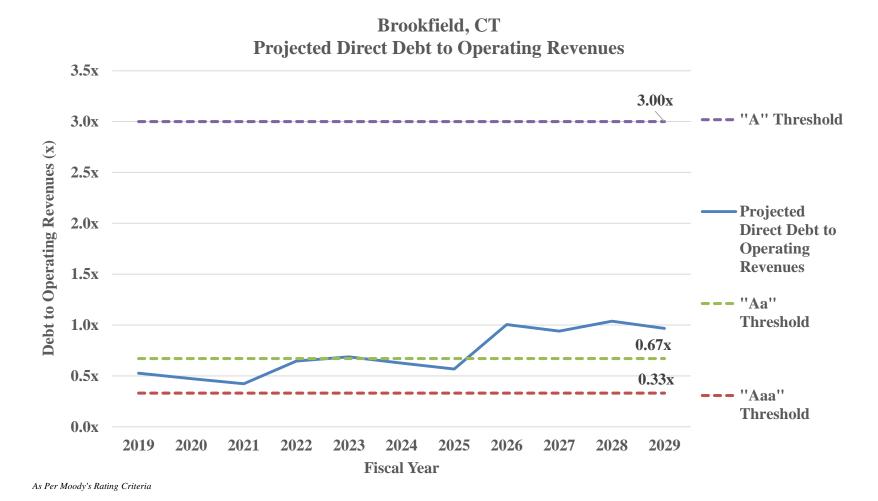
As the chart below indicates, the issuance of new debt will increase the Town's debt ratios.





#### Scenario 1 - Projected Direct Debt to Operating Revenues

As the chart below indicates, the issuance of new debt will increase the Town's debt ratios.





### Comparison of Brookfield to Other Connecticut Towns

Comparable Cities and Towns to Brookfield, CT for FY 2016					
Town/City	Current Moody's / S&P / Fitch Rating	Direct Debt / Full Value (%)	Direct Debt / Operating Revenues (x)		
Brookfield, CT	Aa2/AAA/NR	1.6	0.774		
Litchfield, CT	Aa2/NR/NR	1.5	0.717		
New Fairfield,					
CT	Aa1/AAA/NR	1.0	0.397		
New Milford, CT	Aa1/AA+/NR	0.8	0.293		
Newtown, CT	Aa1/AAA/NR	1.6	0.593		
Ridgefield, CT	Aaa / AAA / AAA	1.1	0.550		
Sherman, CT	Aa2 / NR / NR	0.8	0.491		
Waterbury, CT	A1/AA-/AA-	8.1	1.079		

Source: Moody's Municipal Ratio Analysis, accessed December 19, 2017.

Moody's, S&P, and Fitch ratings as of 12/21/2017

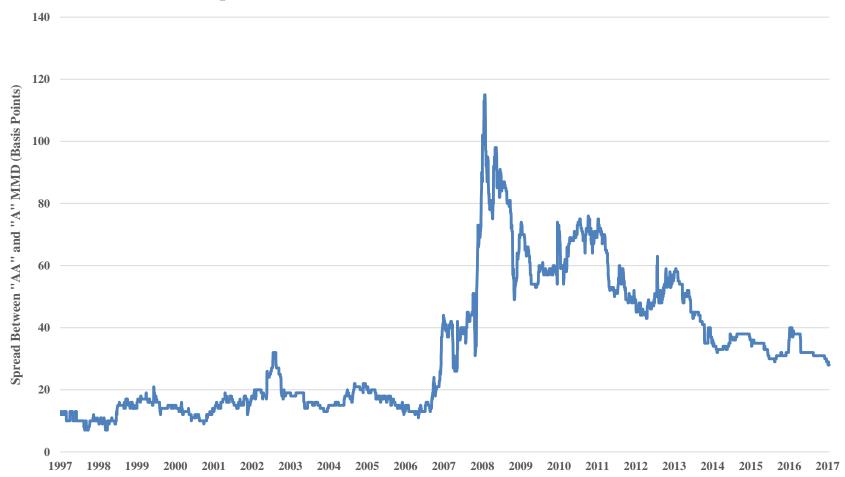


# What Does a Downgrade Cost the Town?



#### Historic Spread MMD Spreads





Source: Thompson and Reuters as of December 19, 2017



#### Difference in Bond Proceeds at 40 Basis Points

	Borrowing at Market Rates	Borrowing at Market Rates + 40 Basis Points	Difference
<b>Bonded Amount</b>	\$10,000,000	\$10,000,000	-
Premium	\$330,868	-\$27,581	\$358,448.45
Net Proceeds	\$10,330,868	\$9,972,419	\$358,448.45

Market rates as of 12/14/2017. Rates are subject to change and for discussion purposes only Bonds structured as 20-years of level debt service payments



## Recommendations



#### Hilltop Securities Recommends as Follows:

- The Town should issue its bonds as 20-year fixed rate bonds amortized to produce level debt service.
- The Bonds should be issued as shown below:

Fiscal Year	Bond Anticipation Notes (BANs) Par Amount of Issuance	Purpose of BANs Proceeds	Bond Par Amount of Issuance	Purpose of Bond Proceeds
2019	\$1,725,000	Streetscape II & Capital Project	\$15,575,000	School and Town Projects and Streetscape Phase I
2020	\$11,570,000	Streetscape II, III, IV, Library & Capital Projects		
2021	\$19,120,000	Streetscape II, III, IV, Library & Capital Projects		
2022	\$4,825,000	Police Radio & Capital Projects	\$19,095,000	Streetscape II, III, IV, Library & Capital Projects
2023	\$19,355,000	School & Various Capital Projects	\$4,825,000	Police Radio
2024	\$37,610,000	School & Various Capital Projects		
2025	\$39,015,000	School & Various Capital Projects		
2026	\$7,340,000	Police Station & Various Capital Projects	\$37,610,000	School & Various Capital Projects
2027	\$12,805,000	Police Station & Various Capital Projects		
2028	\$1,495,000	Various Capital Projects	\$12,805,000	Police Station & Various Capital Projects

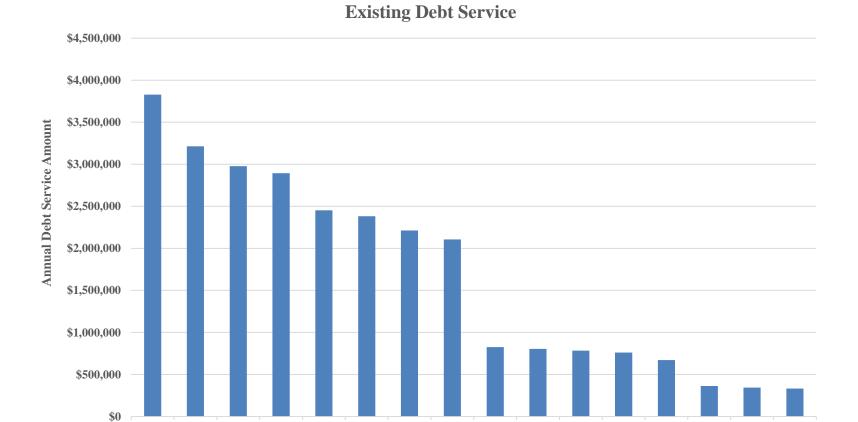
The Town's credit rating may decline due to several factors, including the issuance of additional debt. It is our recommendation that the Town should continue to issue the debt as shown. The cost to the Town will increase, depending on when the rating declines and market conditions at the time of the downgrade.



# Appendix A – Scenario 2



#### The Town's Existing Debt Service Declines Until 2034

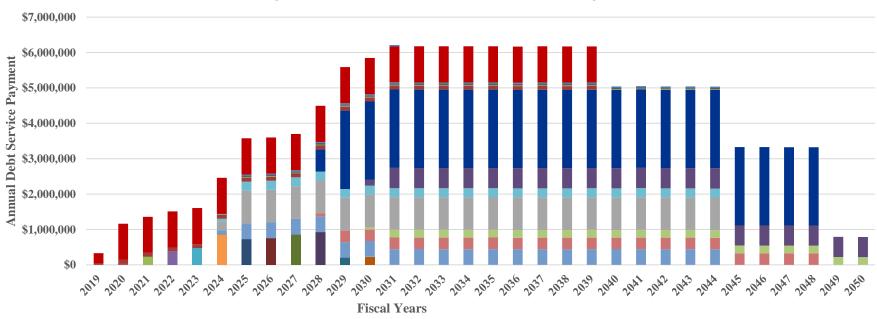






#### Scenario 2 - Additional Debt Service to Complete the Projects Peaks in 2031



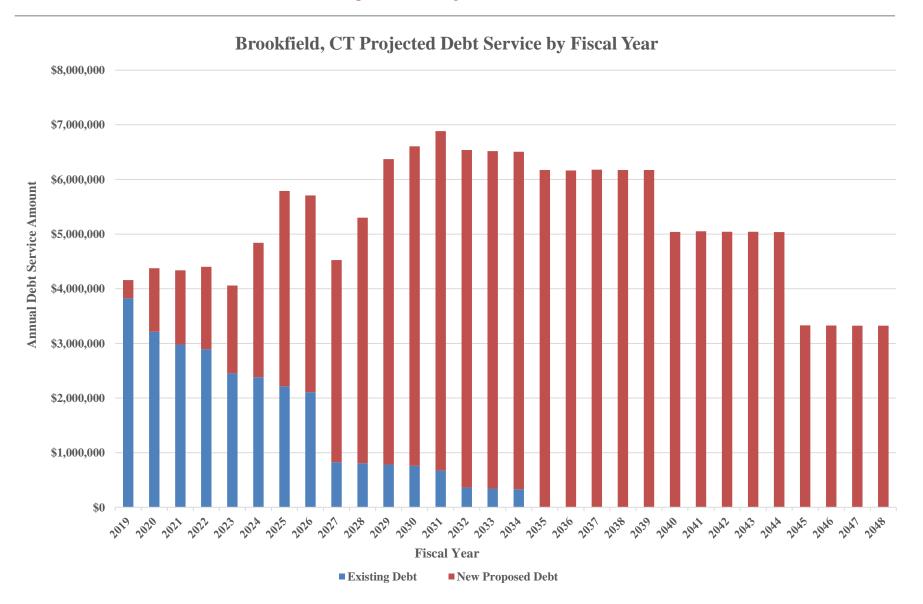


- Streetscape II & Capital Project Notes 2018
- Streetscape II, III, IV, Library & Capital Projects Note 2020
- Streetscape II, III, IV, Police Radio, Library, School & Capital Projects Note 2022
- School & Various Capital Projects Note 2024
- School, Police Station & Various Capital Projects Note 2026
- Police Station & Various Capital Projects Note 2028
- Capital Proj. 2027
- **■** Library
- **■** Police Station
- ■Streetscape Phase I
- Streetscape Phase III
- Tax-Exempt School & Town Projects

- Streetscape II, III, IV, Library & Capital Projects Note 2019
- Streetscape II, III, IV, Police Radio, Library & Capital Projects Note 2021
- School & Various Capital Projects Note 2023
- School, Police Station & Various Capital Projects Note 2025
- Police Station & Various Capital Projects Note 2027
- Capital Proj. 2023
- Capital Proj. 2029
- Police Radio
- School
- **■** Streetscape Phase II
- Streetscape Phase IV
- Various Capital Project Notes 2029



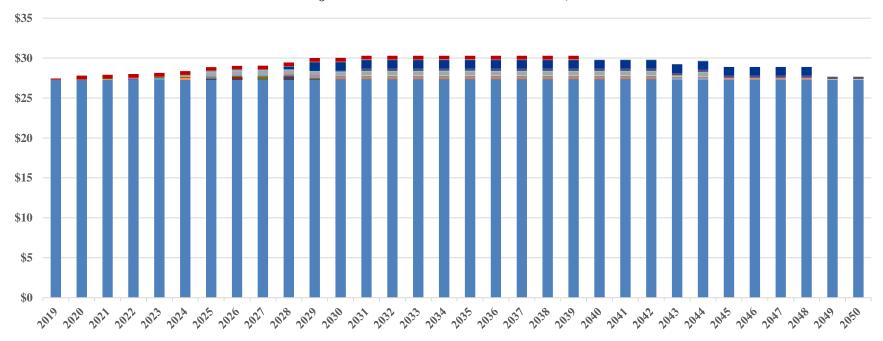
#### Scenario 2 - Combined Existing and Projected Debt Service Peaks in 2031





#### Scenario 2 - Mill Rate Impact of Projected Debt Service

#### Projected Mill Rate for Brookfield, CT



- Tax-Exempt School & Town Projects
- **■**Streetscape Phase III
- **■**Streetscape Phase I
- **■**Police Station
- **■** Library
- Capital Proj. 2027
- Capital Proj. 2021
- School & Various Capital Project Notes 2026
- School & Various Capital Project Notes 2024
- ■Streetscape II, III, IV, Police Radio, Library & Capital Projects Note 2022
- Streetscape II, III, IV, Library & Capital Projects Note 2020
- Streetscape II & Capital Project Notes 2018

- Streetscape Phase IV
- **■** Streetscape Phase II
- School
- Police Radio
- Capital Proj. 2029
- Capital Proj. 2023
- Police Station & Various Capital Projecst Note 2027
- School & Various Capital Project Notes 2025
- School & Various Capital Project Notes 2023
- Sreetscape II, III, IV, Police Radio, Library & Capital Projects Note 2021
- Streetscape II, III, IV, Library & Capital Projects Note 2019
- Current Mill Rate



## Scenario 2 - Mill Rate Impact By BAN and Bond

Bond Anticipation Notes (BANs)					
Fiscal Year	Purpose of BANs Proceeds	Projected Increase in Mill Rate for Fiscal Year (\$)			
2019	Streetscape II & Capital Project	\$0.02			
2020	Streetscape II, III, IV, Library & Capital Projects	\$0.10			
2021	Streetscape II, III, IV, Library & Capital Projects	\$0.17			
2022	Streetscape II, III, IV, Library, Police Radio, & Capital Projects	\$0.21			
2023	Streetscape II, III, IV, Library, Police Radio, & Capital Projects	\$0.38			
2024	School & Various Capital Projects	\$0.32			
2025	School & Various Capital Projects	\$0.34			
2026	School, Police Station, & Various Capital Projects	\$0.38			
2027	School, Police Station, & Various Capital Projects	\$0.41			
2028	Police Station & Various Capital Projects	\$0.09			
2029	Police Station & Various Capital Projects	\$0.01			
2030	Various Capital Projects	\$0.01			
2031					

Bonds				
D of D I D	Average Annual Impact on Mill Rate (\$) for 20 Years			
Purpose of Bond Proceeds				
School and Town Projects	\$0.44			
Streetscape Phase I	\$0.05			
·				
Streetscape Phase II	\$0.01			
Streetscape Phase III	\$0.02			
Streetscape Phase IV	\$0.01			
Library	\$0.40			
Police Radio	\$0.11			
Various Capital Projects	\$0.19			
School	\$0.96			
Various Capital Projects	\$0.14			
Police Station	\$0.25			
Various Capital Projects	\$0.09			

BANs and Bonds	
Aggregate Increase in Mill Rate Over Current Mill Rate (\$)	Projected Mill Rate (\$)
\$0.15	\$27.44
\$0.52	\$27.81
\$0.61	\$27.90
\$0.72	\$28.01
\$0.85	\$28.14
\$1.08	\$28.37
\$1.58	\$28.87
\$1.75	\$29.04
\$1.76	\$29.05
\$2.15	\$29.44
\$2.72	\$30.01
\$2.84	\$30.13
\$3.02	\$30.31



#### Scenario 2 - Assumptions for Projected Debt Issuances

- 1. Aa2/AAA Market Rates as of December 14, 2017.
- 2. Assumes an increase of +25 bps for all debt (Bonds and Bond Anticipation Notes "BANs") issued FY 2020, +50 bps for FY 2021, +75 bps for FY 2022 and +100 bps for FY 2023-2031.
- 3. Assumes level debt service structure with 20-year final maturity for each series of Bonds.
- 4. Paydowns of \$595,000 required on 11/15/2018 (this does not include the \$105,000 of paydowns due for the self-supporting debt).
- Assumes paydowns of \$25,000 in FY 2020 and 2021, \$90,000 in FY 2022, \$585,000 in FY 2023, \$940,000 in FY 2024, \$900,000 in FY 2026, \$1,815,000 in FY 2027, \$1,885,000 in FY 2028, \$225,000 in FY 2029 and \$425,000 in FY 2030
- 6. Original estimated Capital Project amounts have been adjusted to round to nearest \$5,000.
- 7. Rates are preliminary and subject to change with market movement.
- 8. Self-supporting debt is not included.
- 9. Costs of Issuance is anticipated to be approximately \$80,000-\$90,000 (depending on number of ratings) for a bond issue and will need to be included as part of the Town's budget in the year of issuance.
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- 11. Assumes BANs sold in every year starting in FY 2019-2030, respectively: \$1,725,000, \$11,570,000, \$19,120,000, \$23,855,000, \$42,625,000, \$36,255,000, \$37,660,000, \$42,695,000, \$46,345,000, \$9,995,000, \$11,295,000, and \$1,555,000.



# Rating Agency Considerations



#### **Rating Agency Considerations**

- The Town is currently rated Aa2 by Moody's and AAA from Standard & Poor's ("S&P")
- However, the S&P rating has not been reviewed recently
  - Based on current S&P criteria, a downgrade to AA+ is possible due to changes in factors unrelated to additional debt
- In recent years both Moody's and Standard & Poor's have tried to make the ratings process more "transparent," there is still discretion in the ratings
- Rating agencies can change their criteria at any times, which can result in movements in credit ratings
  - As a result, it is difficult to predict future ratings with accuracy
  - Hilltop uses rating models based on current rating agency criteria



#### Scenario 2 - Timeline of Debt Issuance and Credit Ratings

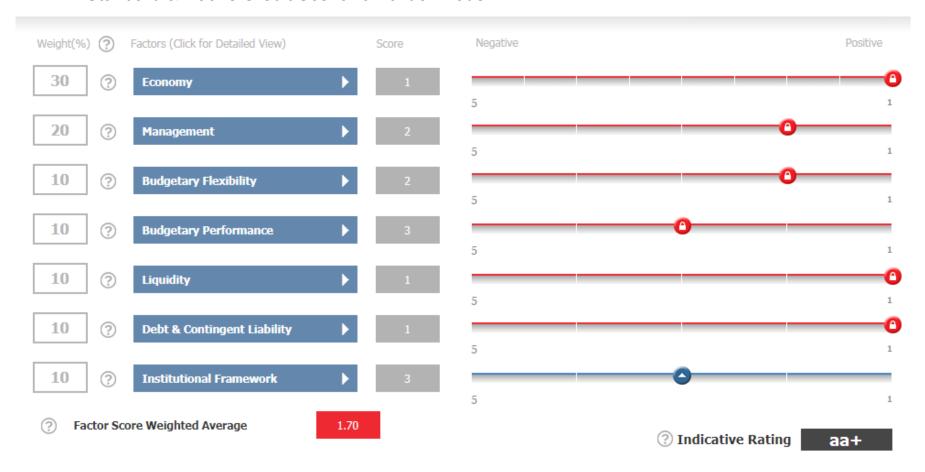
- Moody's Aa2 rating is not projected to change despite debt metrics worsening in future years
- S&P's AAA rating is projected to be downgraded with existing debt to AA+ due to factors other than new proposed debt

Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Moody's													
Rating	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2
S&P Rating	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+
Projects Bonded For	Tax- Exempt School & Town Projects					Streetscape Phase II				School Projects		Police Station	
	Streetscape Phase I					Streetscape Phase III				Various Capital Projects		Various Capital Projects	
						Streetscape Phase IV							
						Police Radio							
						Library Project							
						Various Capital Projects							



#### Current Standard & Poor's Rating with Existing Debt

 Strong scores in the highest weighted factors keep up Brookfield's score as according to Standard & Poor's Credit Scenario Builder Model





#### Scenario 2 – Projected S&P Rating Fiscal Years 2028 - 2031

Increased debt liability and debt service weaken Brookfield's score but does not impact credit rating





## Current Moody's Rating

		Estimated Rating		
Moody's Grid Mapping Criteria	Sub-Factor Weights	Score	Rating Category	
Factor 1: Economy (30%)				
Tax Base Size (MM)	10%	2.0	Aa	
Full Value Per Capita	10%	1.0	Aaa	
Wealth (median family income)	10%	2.0	Aa	
Total Factor 1	30%			
Factor 2: Finance (30%)				
Fund Balance (% of Revenues)	10%	3.0	Α	
Fund Balance Trend (5-Year change)	5%	3.0	A	
Cash Balance (% of Revenues)	10%	3.0	A	
Cash Balance Trend (5-Year change)	5%	4.0	Baa	
Total Factor 2	30%			
Factor 3: Management (20%)				
Institutional Framework	10%	2.0	Aa	
Operating History	10%	3.0	A	
Total Factor 3	20%			
Factor 4: Debt/Pensions (20%)				
Debt to Full Value	5%	2.0	Aa	
Debt to Revenues	5%	2.0	Aa	
Moody's Adjusted Pension Liability (3-Year Average) to Full Value	5%	1.0	Aaa	
Moody's Adjusted Pension Liability (3-Year Average) to Revenues	5%	1.0	Aaa	
Total Factor 4	20%			
Grid Indicated Rating	100%		Aa3	
nitial Notch Adjustments			1.0 *	
Analyst Notch Adjustments			None	

<sup>\*</sup> One notch up for participation in large regional economy (NYC metro area)



### Scenario 2 - Projected Moody's Rating in Fiscal 2028

 Increased debt levels changes the Town's scorecard score starting in Fiscal 2028, but does not ultimately project a change in the Town's Moody's rating

		Estimated Rating		
	Sub-Factor		Rating	
Moody's Grid Mapping Criteria	Weights	Score	Category	
Factor 1: Economy (30%)				
Tax Base Size (MM)	10%	2.0	Aa	
Full Value Per Capita	10%	1.0	Aaa	
Wealth (median family income)	10%	2.0	Aa	
Total Factor 1	30%			
Factor 2: Finance (30%)				
Fund Balance (% of Revenues)	10%	3.0	Α	
Fund Balance Trend (5-Year change)	5%	3.0	Α	
Cash Balance (% of Revenues)	10%	3.0	Α	
Cash Balance Trend (5-Year change)	5%	4.0	Baa	
Total Factor 2	30%			
Factor 3: Management (20%)				
Institutional Framework	10%	2.0	Aa	
Operating History	10%	3.0	Α	
Total Factor 3	20%			
Factor 4: Debt/Pensions (20%)				
Debt to Full Value	5%	3.0	A	
Debt to Revenues	5%	3.0	Α	
Moody's Adjusted Pension Liability (3-Year Average) to Full Value	5%	1.0	Aaa	
Moody's Adjusted Pension Liability (3-Year Average) to Revenues	5%	1.0	Aaa	
Total Factor 4	20%			
Grid Indicated Rating	100%		Aa3	
STAN ALABA A			4.0.*	
nitial Notch Adjustments Analyst Notch Adjustments			1.0 * None	

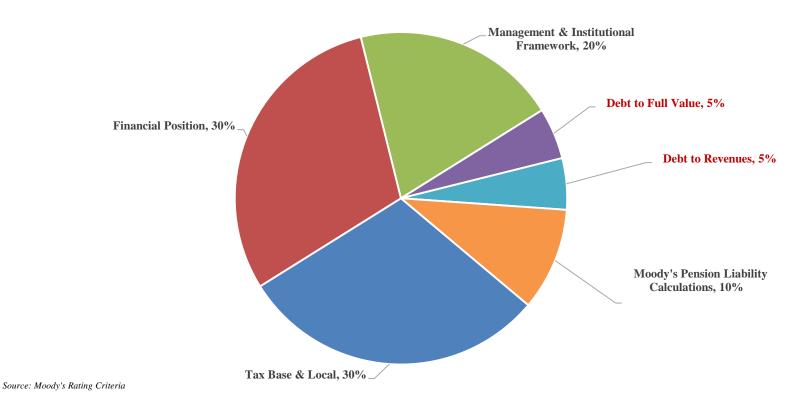
<sup>\*</sup> One notch up for participation in large regional economy (NYC metro area)



#### Debt Analysis is only 10% of Moody's Current Rating Criteria

Moody's current criteria includes two debt ratio factors, which constitute 10% of the overall rating.

Moody's Local Government Rating Criteria as of December 2017

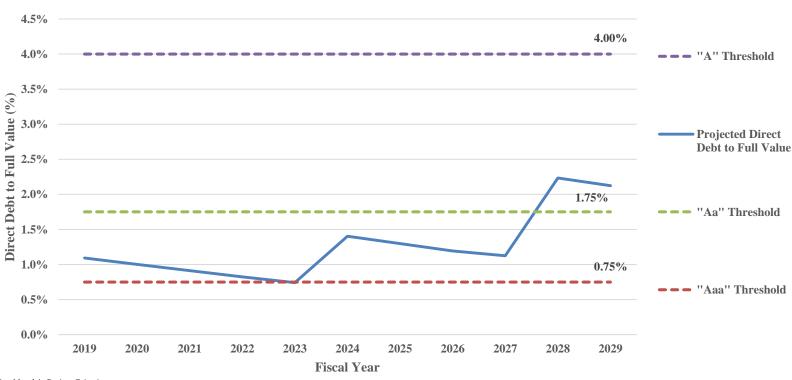




#### Scenario 2 - Projected Direct Debt to Full Value

As the chart below indicates, the issuance of new debt will increase the Town's debt ratios.

Brookfield, CT Projected Direct Debt to Full Value



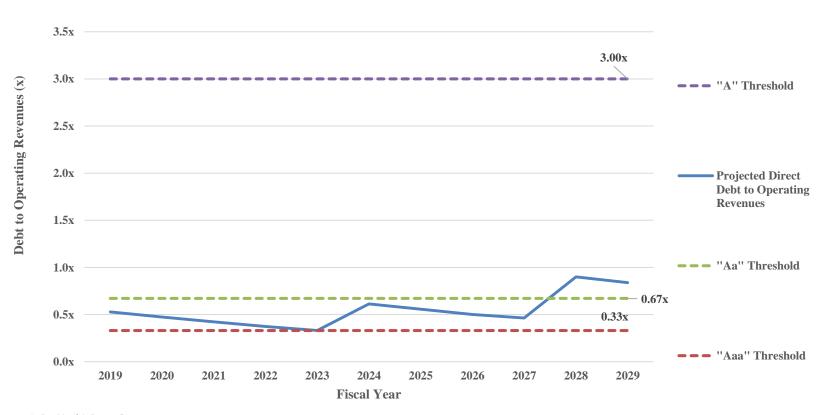




#### Scenario 2 - Projected Direct Debt to Operating Revenues

As the chart below indicates, the issuance of new debt will increase the Town's debt ratios.

Brookfield, CT Projected Direct Debt to Operating Revenues



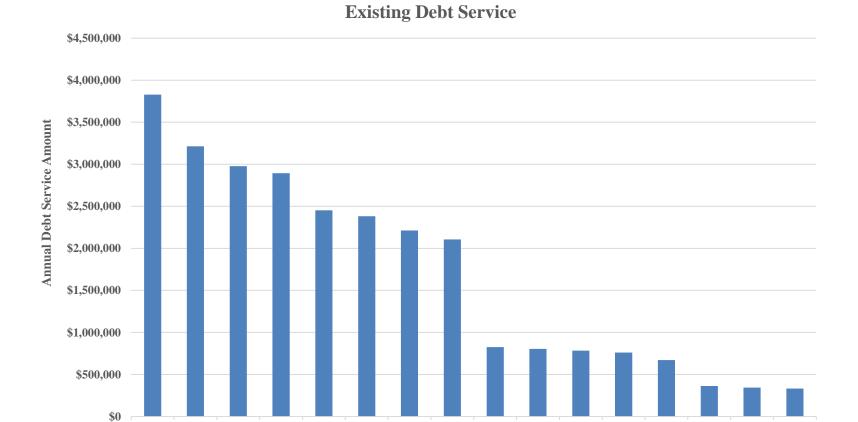
As Per Moody's Rating Criteria



# Appendix B – Scenario 3



### The Town's Existing Debt Service Declines Until 2034

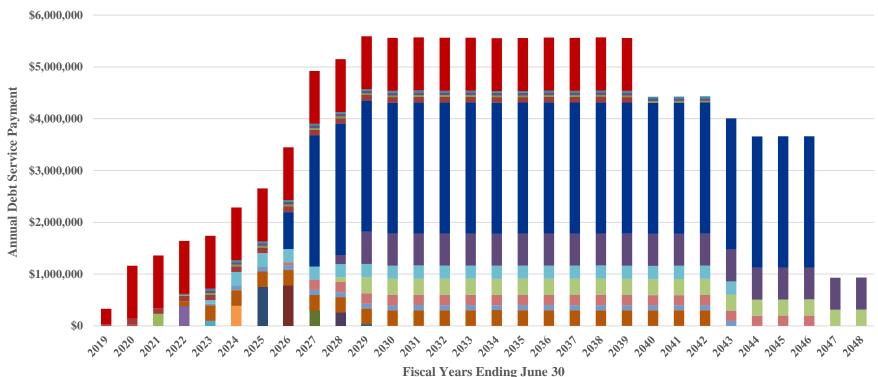






#### Scenario 3 - Additional Debt Service to Complete the Projects Peaks in 2029





Fiscal Years Ending June 30

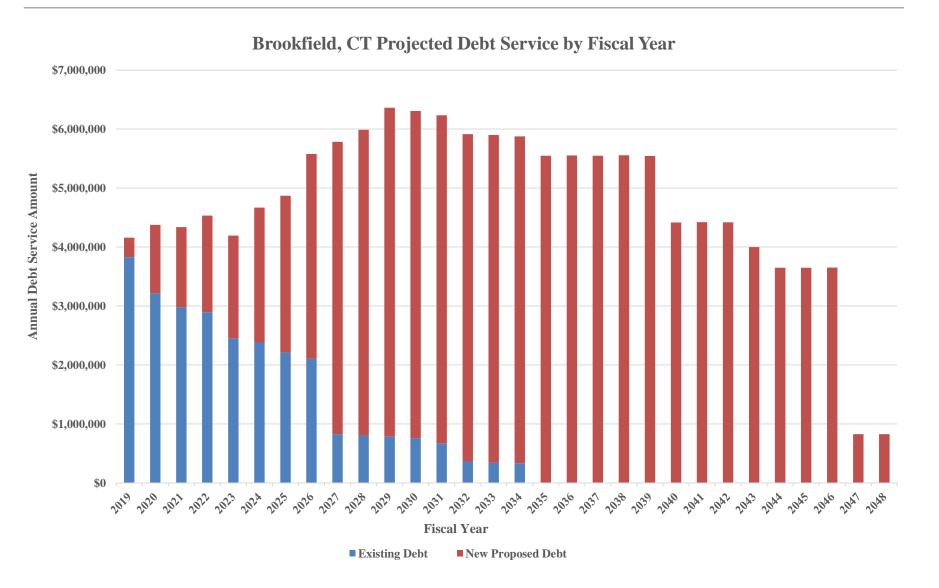
- ■Streetscape II & Capital Project Notes 2018
- ■Police Radio & Capital Projects Notes 2021
- School & Various Capital Project Notes 2024
- Various Capital Project Notes 2027
- Capital Proj. 2025
- ■Police Radio
- ■Streetscape Phase I
- ■Streetscape Phase IV

- ■Streetscape II, III, IV, Library & Capital Projects Note 2019
- School & Various Capital Project Notes 2022
- ■Police Station & Various Capital Project Notes 2025
- Capital Proj. 2021
- Capital Proj. 2027
- **■**Police Station
- **■**Streetscape Phase II
- ■Tax-Exempt School & Town Projects

- Streetscape II, III, IV, Library & Capital Projects Notes 2020
- School & Various Capital Project Notes 2023
- Police Station & Various Capital Project Notes 2026
- Capital Proj. 2022
- **■** Library
- School
- **■** Streetscape Phase III



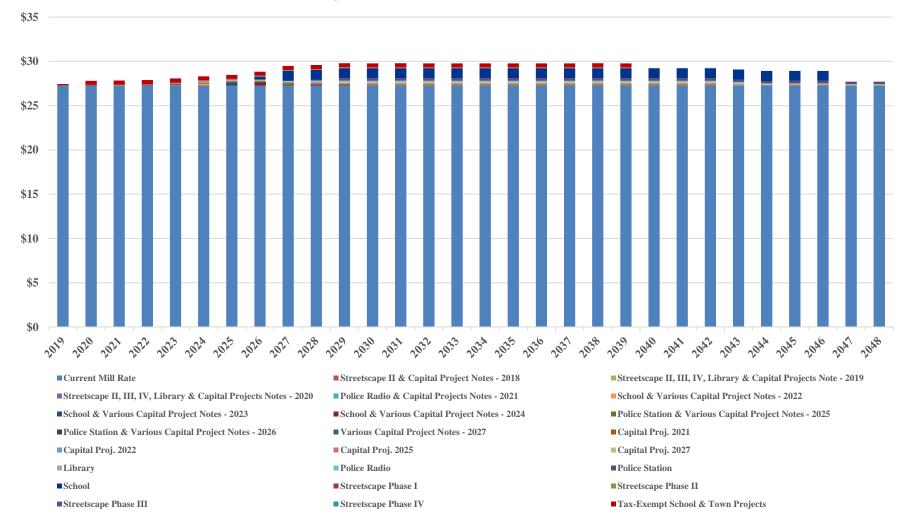
#### Scenario 3 - Combined Existing and Projected Debt Service Peaks in 2029





### Scenario 3 - Mill Rate Impact of Projected Debt Service

#### Projected Mill Rate for Brookfield, CT





# Scenario 3 - Mill Rate Impact By BAN and Bond

Bond Anticipation Notes (BANs)						
Fiscal Year	Purpose of BANs Proceeds	Projected Increase in Mill Rate for Fiscal Year (\$)				
2019	Streetscape II & Capital Project	\$0.02				
2020	Streetscape II, III, IV, & Capital Projects	\$0.04				
2021	Streetscape II, III, IV, & Capital Projects	\$0.05				
2022	Police Radio & Capital Projects	\$0.04				
2023	School & Various Capital Projects	\$0.17				
2024	School & Various Capital Projects	\$0.34				
2025	School & Various Capital Projects	\$0.35				
2026	Police Station & Various Capital Projects	\$0.13				
2027	Police Station & Various Capital Projects	\$0.11				
2028	Various Capital Projects	\$0.01				

Box	nds
Purpose of Bond Proceeds	Average Annual Impact on Mill Rate (\$) for 20 Years
School and Town Projects	\$0.44
Streetscape Phase I	\$0.05
Streetscape Phase II	\$0.01
Streetscape Phase III	
Streetscape Phase IV	·
Various Capital Projects	\$0.13
Police Radio	\$0.11
School Various Capital	\$1.09
Projects	\$0.09
	***
Police Station Various Capital	\$0.27
Projects	\$0.14

BANs and Bonds						
Aggregate Increase in Mill Rate Over Current Mill Rate (\$)	Projected Mill Rate (\$)					
\$0.15	\$27.44					
\$0.52	\$27.81					
\$0.54	\$27.83					
\$0.61	\$27.90					
\$0.78	\$28.07					
\$1.02	\$28.31					
\$1.19	\$28.48					
\$1.54	\$28.83					
\$2.20	\$29.98					
\$2.31	\$30.08					



#### Scenario 3 - Assumptions for Projected Debt Issuances

- 1. Aa2/AAA Market Rates as of December 14, 2017.
- 2. Assumes an increase of +25 bps for all debt (Bonds and Bond Anticipation Notes "BANs") issued FY 2020, +50 bps for FY 2021, +75 bps for FY 2022 and +100 bps for FY 2023-2028.
- 3. Assumes level debt service structure with 20-year final maturity for each series of Bonds.
- 4. Paydowns of \$595,000 required on 11/15/2018 (this does not include the \$105,000 of paydowns due for the self-supporting debt).
- 5. Assumes a paydown of \$25,000 in FY 2020, 2021, 2022, and 2023 for the Streetscape II project.
- 6. Original estimated Capital Project amounts have been adjusted to round to nearest \$5,000.
- 7. Rates are preliminary and subject to change with market movement.
- 8. Self-supporting debt is not included.
- 9. Costs of Issuance is anticipated to be approximately \$80,000-\$90,000 (depending on number of ratings) for a bond issue and will need to be included as part of the Town's budget in the year of issuance.
- 10. Costs of Issuance is estimated to be between \$40,000 -\$55,000 (depending on issue size) for a BAN issue and will need to be included as part of the Town's budget in the year of issuance.
- 11. Assumes BANs sold in every year starting in FY 2019-2028, respectively: \$1,725,000, \$4,070,000, \$5,345,000, \$4,825,000, \$19,355,000, \$37,610,000, \$39,015,000, \$7,340,000, \$12,805,000, and \$1,495,000.



# Rating Agency Considerations



#### **Rating Agency Considerations**

- The Town is currently rated Aa2 by Moody's and AAA from Standard & Poor's ("S&P")
- However, the S&P rating has not been reviewed recently
  - Based on current S&P criteria, a downgrade to AA+ is possible due to changes in factors unrelated to additional debt
- In recent years both Moody's and Standard & Poor's have tried to make the ratings process more "transparent," there is still discretion in the ratings
- Rating agencies can change their criteria at any times, which can result in movements in credit ratings
  - As a result, it is difficult to predict future ratings with accuracy
  - Hilltop uses rating models based on current rating agency criteria



#### Scenario 3 - Timeline of Debt Issuance and Credit Ratings

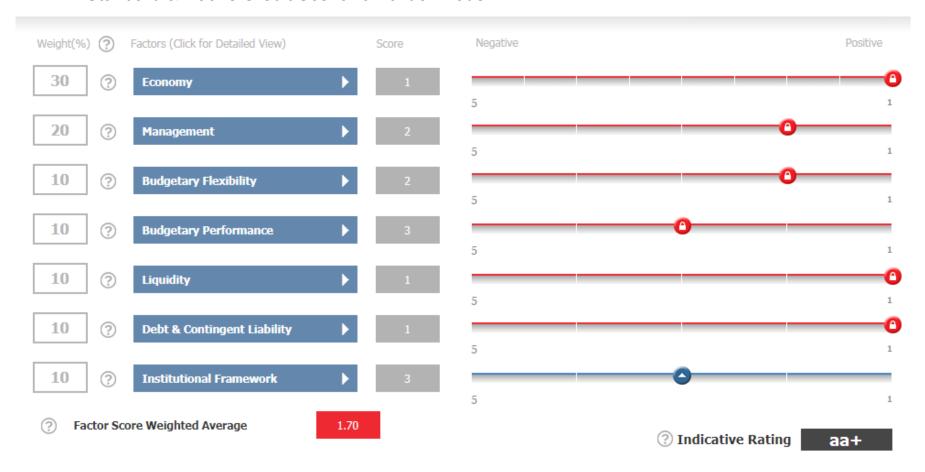
- Moody's Aa2 rating is not projected to change despite debt metrics worsening in future years
- S&P's AAA rating is projected to be downgraded with existing debt to AA+ due to factors other than new proposed debt

Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Moody's Rating	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2
S&P Rating	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+
Projects Bonded For	Tax- Exempt School & Town Projects			Streetscape Phase II	Police Radio			School Projects		Police Station	
	Streetscape Phase I			Streetscape Phase III	Various Capital Projects			Various Capital Projects		Various Capital Projects	
				Streetscape Phase IV							
				Various Capital Projects							



#### Current Standard & Poor's Rating with Existing Debt

 Strong scores in the highest weighted factors keep up Brookfield's score as according to Standard & Poor's Credit Scenario Builder Model





#### Scenario 3 – Projected S&P Rating Fiscal Years 2026 - 2029

Increased debt liability and debt service weaken Brookfield's score but does not impact credit rating





## Current Moody's Rating

		Estimat	ed Rating	
Moody's Grid Mapping Criteria	Sub-Factor Weights	Score	Rating Category	
Factor 1: Economy (30%)				
Tax Base Size (MM)	10%	2.0	Aa	
Full Value Per Capita	10%	1.0	Aaa	
Wealth (median family income)	10%	2.0	Aa	
Total Factor 1	30%			
Factor 2: Finance (30%)				
Fund Balance (% of Revenues)	10%	3.0	A	
Fund Balance Trend (5-Year change)	5%	3.0	A	
Cash Balance (% of Revenues)	10%	3.0	A	
Cash Balance Trend (5-Year change)	5%	4.0	Baa	
Total Factor 2	30%			
Factor 3: Management (20%)				
Institutional Framework	10%	2.0	Aa	
Operating History	10%	3.0	A	
Total Factor 3	20%			
Factor 4: Debt/Pensions (20%)				
Debt to Full Value	5%	2.0	Aa	
Debt to Revenues	5%	2.0	Aa	
Moody's Adjusted Pension Liability (3-Year Average) to Full Value	5%	1.0	Aaa	
Moody's Adjusted Pension Liability (3-Year Average) to Revenues	5%	1.0	Aaa	
Total Factor 4	20%			
Grid Indicated Rating	100%		Aa3	
nitial Notch Adjustments			1.0 *	
Analyst Notch Adjustments			None	

<sup>\*</sup> One notch up for participation in large regional economy (NYC metro area)



### Scenario 3 - Projected Moody's Rating in Fiscal 2029

 Increased debt levels changes the Town's scorecard score starting in Fiscal 2029, but does not ultimately project a change in the Town's Moody's rating

		Estimated Rating		
	Sub-Factor		Rating	
Moody's Grid Mapping Criteria	Weights	Score	Category	
Factor 1: Economy (30%)				
Tax Base Size (MM)	10%	2.0	Aa	
Full Value Per Capita	10%	1.0	Aaa	
Wealth (median family income)	10%	2.0	Aa	
Total Factor 1	30%			
Factor 2: Finance (30%)				
Fund Balance (% of Revenues)	10%	3.0	Α	
Fund Balance Trend (5-Year change)	5%	3.0	Α	
Cash Balance (% of Revenues)	10%	3.0	A	
Cash Balance Trend (5-Year change)	5%	4.0	Baa	
Total Factor 2	30%			
Factor 3: Management (20%)				
Institutional Framework	10%	2.0	Aa	
Operating History	10%	3.0	Α	
Total Factor 3	20%			
Factor 4: Debt/Pensions (20%)				
Debt to Full Value	5%	3.0	Α	
Debt to Revenues	5%	3.0	Α	
Moody's Adjusted Pension Liability (3-Year Average) to Full Value	5%	1.0	Aaa	
Moody's Adjusted Pension Liability (3-Year Average) to Revenues	5%	1.0	Aaa	
Total Factor 4	20%			
Grid Indicated Rating	100%		Aa3	
·			16.5	
nitial Notch Adjustments			1.0 *	
Analyst Notch Adjustments			None	

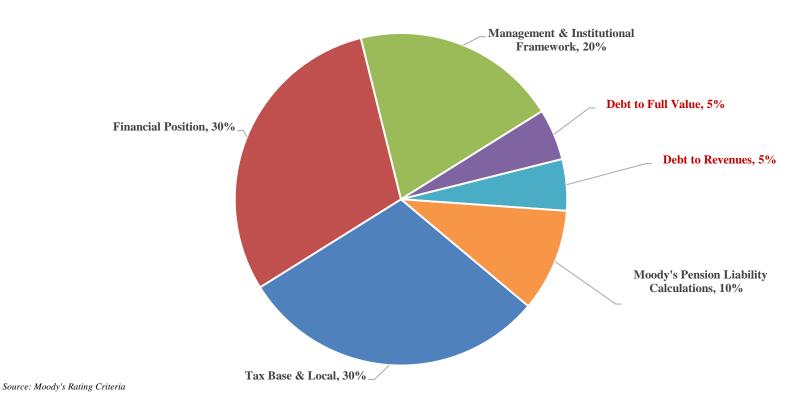
<sup>\*</sup> One notch up for participation in large regional economy (NYC metro area)



#### Debt Analysis is only 10% of Moody's Current Rating Criteria

Moody's current criteria includes two debt ratio factors, which constitute 10% of the overall rating.

Moody's Local Government Rating Criteria as of December 2017

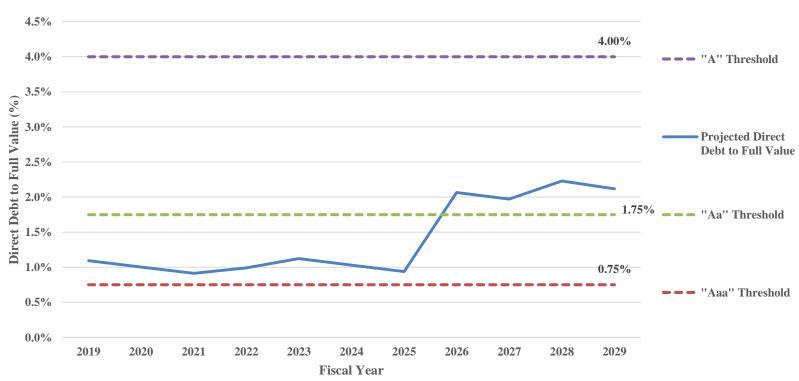




#### Scenario 3 - Projected Direct Debt to Full Value

As the chart below indicates, the issuance of new debt will increase the Town's debt ratios.

Brookfield, CT Projected Direct Debt to Full Value

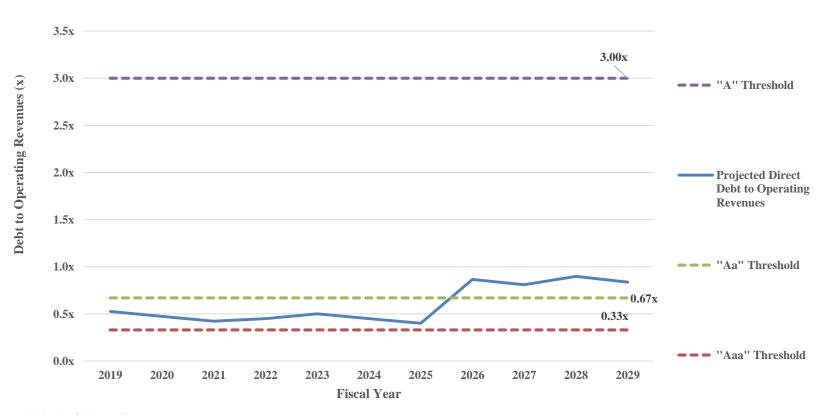


As Per Moody's Rating Criteria

#### Scenario 3 - Projected Direct Debt to Operating Revenues

As the chart below indicates, the issuance of new debt will increase the Town's debt ratios.

Brookfield, CT Projected Direct Debt to Operating Revenues



As Per Moody's Rating Criteria

# Appendix C – Cost of Projects



## Net Cost of Major Projects

Project	Net Cost		
Tax-Exempt School & Town Projects	\$14,075,000		
Streetscape Phase I	\$1,500,000		
Streetscape Phase II	\$475,000		
Streetscape Phase III	\$475,000		
Streetscape Phase IV	\$475,000		
Library	\$13,775,000		
Police Station	\$8,500,000		
Police Radios	\$3,500,000		
Schools	\$34,875,000		
Totals	\$77,650,000		

Note: "Net Cost" includes paydowns noted on assumption pages. Listed projects above do not include annual capital projects.



#### Disclosure

This communication is intended for issuers for educational and informational purposes only and does not constitute legal or investment advice, nor is it an offer or a solicitation of an offer to buy or sell any investment or other specific product or service. Financial transactions may be dependent upon many factors such as, but not limited to, interest rate trends, tax rates, supply, change in laws, rules and regulations, as well as changes in credit quality and rating agency considerations. The effect of such changes in such assumptions may be material and could affect the projected results. Any outcome or result HilltopSecurities, or any of its employees, may have achieved on behalf of our clients in previous matters does not necessarily indicate similar results can be obtained in the future for current or potential clients. HilltopSecurities makes no claim the use of this communication will assure a successful outcome. This communication is intended for institutional use only. For additional information, comments or questions, please contact HilltopSecurities.

